

## **DUAL-WAVE OPTICAL SHARED PROTECTION RING**

### **ABSTRACT OF THE DISCLOSURE**

An optical ring is provided for propagating optical signal pairs over wavelength connections between nodes. Each optical signal pair includes two signals at different wavelengths. At one or more of the nodes, one signal of the pair acts as a transmit signal and the other acts as a receive signal. If a failure is detected the optical signal pair is redirected over a protection path without changing the wavelengths of the transmit and receive signals. This may be achieved by reversing a propagation direction for each of the signals comprised by the redirected optical signal pair.